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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,262	12/31/2003	Jin-Tae Oh	3364P161	8483
8791	7590	03/06/2008	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			POWERS, WILLIAM S	
1279 OAKMEAD PARKWAY			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/749,262	Applicant(s) OH ET AL.
	Examiner WILLIAM S. POWERS	Art Unit 2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 December 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3 and 5-8 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-146/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/14/2007 have been fully considered but they are not persuasive.
2. As to Applicant's argument that, "Dividing the pattern data according to the present invention is to divide words from an input sentence, and is different from portioning the byte pattern into substrings as disclosed by Rajagopal" (Remarks, page 8, lines 10-12), it is noted that the features upon which applicant relies (i.e., "input sentence") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In addition, it is pointed out that the Applicant as provided no support for the contention that "to divide words" of the instant application is patently distinct from "portioning the byte pattern" of Rajagopal. For at least the reasons above, the rejection to the claims is maintained.
3. As to Applicant's argument that, "Position information according to the present invention is information about the positions at which the separated words are stored, and are different fro key value as taught by Rajagopal" (Remarks, page 8, lines 12-14), In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "position information") are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Applicant uses the phrase "position sequence information" in the claims and the Examiner has interpreted this phrase to refer to the relative position of the divided pattern data to the pattern data as a whole. The second step of the method of the amended claim 1 is "extracting position sequence information of each divided part of the pattern data". There is no reference to storing the parts of the divided pattern data at this point of the method. For at least the reasons above, the rejection to the claims is maintained.

4. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Response to Amendment

5. The Examiner has stated the below column and line numbers as examples. All columns and line numbers in the reference and the figures are relevant material and Applicant should be taken the entire reference into consideration upon the reply to this Office Action.

6. Claims 1, 3 and 5-8 have been amended.
7. Claims 2, 4 and 9-11 have been cancelled.

8. Claims 1, 3 and 5-8 are pending.

Drawings

9. The amended drawing sheets have been accepted by the Examiner and the previous objections to the drawings have been withdrawn.

10. The drawings are objected to because the term "usr" in ref. 420 of figure 4 has not been amended to reflect the change from "usr" to "user" in figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

11. The cancellation of claims 2, 4 and 9-11 have rendered the previous objections to those claims moot.
12. The previous objections to claims 5-7 have been withdrawn.

Claim Rejections - 35 USC § 112

13. In light of the amendments, the previous 35 USC 112, 2nd paragraph rejections of claims 1, 3 and 8 have been withdrawn.
14. The cancellation of claims 2, 4 and 9-11 have rendered the previous 35 USC 112, 2nd paragraph rejections to those claims moot.
15. The amendments to claims 5-7 have resolved antecedent basis issues, but the 35 USC 112, 2nd paragraph issues have not been resolved.
16. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
17. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 5, it is unclear what is stored in the separate table. "The divided parts of the pattern data" with "the position sequence information" are stored in a table according to claim 1. It appears that the separate table stores "pattern data" and "position sequence of the pattern data". It is assumed that "the position sequence" of the claim refers to the "position sequence information" of the base claim. "The position sequence information" of the base claim refers to the position sequence information of "each divided part of the pattern data", not the pattern data as a whole. In a similar vein, there is one pattern data mentioned in the base claim, but the last two lines of claim 5 appear to refer to two different pattern data, "of the pattern data subsequent to and different from the pattern data" (claim 5, lines 3-4). In addition, it is unclear what is multiplexed during the multiplexing step. It is pointed out that there is no multiplexing mentioned in the specification.

As to claim 6, it is unclear what is meant by the term "a last sequence." Does "sequence" refer to the final part of the divided pattern data or is there a sequence of distinct sets of pattern data that are being stored? How is the position information defined? Is it an absolute or relative measure? Is there a difference between "pattern data" of line 2 and "the divided part of the pattern data" of line 3 or is the divided part a portion of the pattern data? It appears that the claim language is alluding to some kind of comparison or matching procedure involving the divided parts of the pattern data, but there is no method step that represents that implication in this claim or the base claim.

As to claim 7, it is not clear what is meant by "a last position" in the last line of the claim. Does "a last position" refer to the divided pattern data or the corresponding pattern data that is stored? It appears that the claim language is alluding to some kind of comparison or matching procedure involving the divided parts of the pattern data, but there is no method step that represents that implication in this claim or the base claim.

Claim Rejections - 35 USC § 101

18. In light of the amendments, the previous 35 USC 101 rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

20. Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 7,110,540 to Rajagopal et al. (hereinafter Rajagopal).

As to claim 1 as best understood, Rajagopal teaches:

- a. Dividing the pattern data into parts having a defined length or less (portioning the byte pattern into “substrings” equal to the shortest byte pattern) (Rajagopal, col. 2, lines 9-20).
- b. Extracting input position sequence information of each divided part of the pattern data (mismatch value) (Rajagopal, col. 2, lines 32-38).
- c. Assigning a characteristic packet ID to each divided part of the pattern data, and tabulating and storing in a table as table information the divided parts of the pattern data and the position sequence information of the divided parts of the pattern data (keys are assigned to each substring) (Rajagopal, col. 2, lines 39-42).
- e. Using the pattern data stored in the table as a look-up device for a specific pattern in a database (comparing a string to stored byte patterns) (Rajagopal, col. 2, lines 4-8).

As to claim 3 as best understood, Rajagopal teaches the pattern data includes space information which is used to process meta characters (the spacing of the substrings within the byte pattern are used to determine matches in the hash table) (Rajagopal, col. 3, lines 26-38).

As to claim 5 as best understood, Rajagopal teaches the step (c) includes storing, in a separate table, and multiplexing the pattern data stored in the table, the

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position sequence of the pattern data, or of the pattern data subsequent to and different from the pattern data (combining substrings together to form the byte pattern which is stored in the hash table for future use in comparisons) (Rajagopal, col. 5, line 60-col. 6, line 15).

As to claim 6 as best understood, Rajagopal teaches the pattern data having the same divided part of a last sequence are stored to make the divided part of the pattern data of the last sequence have a same position information (position of the substring in the byte pattern) (Rajagopal, col. 2, lines 32-42).

As to claim 7 as best understood, Rajagopal teaches in the step (c), information representing that the pattern data is the pattern data of a last sequence is included in the position sequence information when the divided part of the pattern data is at a last position (the search cycles through a scheme where the substring are compared to the shortest substring in the hash table then expands to longer substrings as long as a match as not occurred) (Rajagopal, col. 5, lines 19-59).

As to claim 8 as best understood, Rajagopal teaches the pattern data are stored in a hash table, and a hash value of each divided part of the pattern data, and sequence information of the divided part of the pattern data are stored (hash table with items corresponding to keys, mismatch value, checksum, byte pattern and a length value) (Rajagopal, col. 2, lines 32-42).

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM S. POWERS whose telephone number is (571)272-8573. The examiner can normally be reached on m-f 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571 272 3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. S. P./
Examiner, Art Unit 2134

William S. Powers
Examiner
Art Unit 2134

2/28/2008

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2134